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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/604,869 | 08/22/2003 | Chanh Cao Minh | 20.2873 | 1868 |
| 23718 | 7590 | 12/30/2004 | EXAMINER | |
| SCHLUMBERGER OILFIELD SERVICES | | | VARGAS, DIXOMARA | |
| 200 GILLINGHAM LANE | | | ART UNIT | |
| MD 200-9 | | | PAPER NUMBER | |
| SUGAR LAND, TX 77478 | | | 2859 | |

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/604,869 | Applicant(s) MINH ET AL. | |
| | Examiner Dixomara Vargas | Art Unit 2859 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 2-4 and 8-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6 and 7 is/are rejected.
- 7) ☐ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/23/03, 11/08/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Claims 2-4 and 8-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/20/04.

Applicant's election with traverse of Specie I in the reply filed on 10/20/04 is acknowledged. The traversal is on the ground(s) that the claims are not distinct all the embodiments are specify how the quantitative formation evaluation values are to be determined from a graph and therefore, non-analogous subject matter has not been created. Applicant elected Specie I stating that said species is disclosed on claims 1-8 and 17-31. However, the examiner believes that claims 1, 5-7 are the claims that encompass the elected Specie I since claims 2-4 and 8-31 are directed to non-elected Species II-IV. In addition, applicants argument is not found persuasive because the remaining species disclose different ways of analyzing and computing a quantitative formation evaluation values based on different methods which render a serious burden since there are countless of other ways to analyze and compute a quantitative formation evaluation values wherein each will be encompassed under different environments and step combinations that requires different search and interpretation per combination, environment and other possible variants. Examples for a different methods to analyze and compute a quantitative formation evaluation values are: comparing the curve peaks to distinguish different components, to use one of many available mathematical manipulations in order to compute

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evaluation values from the signal, discriminate unwanted signals if an specific component signal is desired, comparing signal data with a table of standard values known, comparing signal data of different measurements, averaging signal data before calculating a parameter etc. For the reasons stated above, the restriction requirement is still deemed proper and is therefore made FINAL.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 6 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Freedman et al. (US 6,765,380 B2).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the

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inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

With respect to claim 1, Freedman discloses a method for formation evaluation results from a multi-dimensional representation of nuclear magnetic resonance data, the method comprising the steps of: obtaining a set of NMR data for a fluid sample, computing from the set of NMR data a multi-dimensional distribution using a mathematical inversion independent of prior knowledge of fluid sample property (Abstract; Column 9, lines 13-20), displaying the multi-dimensional distribution as an at least two-axis graph (Figures 7-10); identifying at least one fluid instance on the graph representing a probable existence of a detected fluid, and computing the at least a quantitative formation evaluation value for one fluid instance based on the multi-dimensional distribution associated with the at least one fluid instance (Column 12, lines 16-49).

5. With respect to claim 6, Freedman discloses the multi-dimensional distribution is displayed along a fluid diffusion axis and a T2 relaxation axis (Figures 7-10).

6. With respect to claim 7, Freedman discloses the step wherein the graph includes an overlay with ideal diffusion and a T2 relaxation values (Figures 7-10).

Allowable Subject Matter

7. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

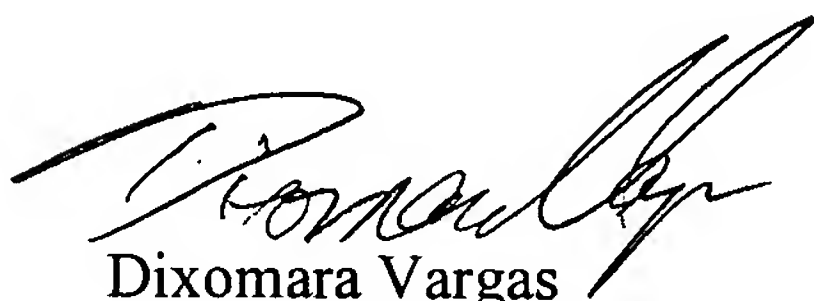
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Conclusion

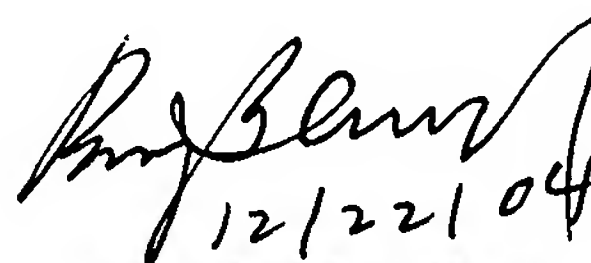
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on 8:00 am. to 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dixomara Vargas
Art Unit 2859
December 21, 2004



BRJ SHRIVASTAV
PRIMARY EXAMINER